

**From:** Schmittdiel, Paula  
**Location:** EPA  
**Importance:** High  
**Subject:** Presentation of Passive Treatment for AMD  
**Start Date/Time:** Mon 5/18/2015 5:00:00 PM  
**End Date/Time:** Mon 5/18/2015 6:30:00 PM

All - I received this email from below from Sovereign Engineering (Jim Gusek's company) offering to give us a presentation on passive treatment systems. I am trying to set up a time the week of May 18<sup>th</sup> when they can come give us a presentation so that we can become better informed about passive treatment systems. This could be useful as I would expect that in the near future (perhaps even the following week at the ARSG meeting in Silverton) they will probably be giving such a presentation to ARSG. I think it could also be useful to us as we begin scoping for RI-type work in the UA in considering data needs for this type of treatment option.

**Please respond ASAP as to your availability for the proposed time above and if possible please let me know your availability for other times on M, T or W that week in case this date/time does not work for Sovereign Engineering.**

Thanks

Paula Schmittdiel  
Remedial Project Manager

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Through talking to some of the Animas River Stakeholder's Group members and reviewing the articles and meeting notes available, I understand that you are listed as EPA's project manager. We would like to meet with you to discuss the future of the water treatment needs for the American tunnel Gold King, Red and Bonita, and Mogul.

Sovereign is a consulting company that specializes in the passive treatment of AMD. Jim Gusek, our principal scientist, is an internationally known expert in passive treatment of mining contaminated wastewater. We believe that it may be possible to develop a combination of passive treatment unit operations that, while not inexpensive to build, would be much less expensive than a lime HDS system and which would have O&M costs that would be a small fraction of what the existing plants at Summitville and Argo cost yearly.

We talked to Doug Jamison of CDPHE, and learned that CDPHE is strongly in favor of considering passive treatment technologies for the future treatment of AMD, because they have a heavy load of lime treatment operations and anticipate operation of the new Clear Creek OU4 plant as well.

As a result of the research we have done to-date, we understand that the issues surrounding the eventual treatment of the American Tunnel drainage are complex, both technically and politically. While we understand that the actual treatment may not begin until either Good Samaritan legislation passes congress or the sites become a Superfund site, we believe that the pilot test work for passive treatment should be done as soon as possible so the process treatment train can be identified and the efficacy of the concept is proven, so the selection of a

lime HDS can possibly be avoided. The nature of passive treatment processes requires that a thorough bench and pilot testing program be done to identify the substrate in the biological reactors, possible design parameters for iron terrace treatment, sizing and media for manganese removal bed (if needed), etc.

We would like to offer our capability to help the ARSG understand the opportunity to employ a lower cost alternative to the standard treatment technology.

Please let me know when you would be available to meet and talk. I strongly prefer next week (except Wednesday), because I'm going on vacation for 2 ½ weeks after May 16<sup>th</sup>.

We look forward to hearing from you.

David A. Myers, P.E.

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